

Table 11.3 – EPA-Forecasted Nitrogen Oxide, Sulfur Dioxide, and Mercury Emissions from Electric Generators

	EPA Base Case 2000				Clear Skies Case			
	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2020</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2020</u>
SO ₂ (Thousand Tons)	10,267	9,861	9,227	8,961	8,424	6,242	5,475	4,403
NO _x (Thousand Tons)	3,896	3,951	4,017	4,066	3,647	2,186	2,162	1,796
CO ₂ (Thousand Tons)	2,428,503	2,632,377	2,795,022	2,960,312	2,412,371	2,599,277	2,758,912	2,899,061
Mercury (Tons)	52	53	52	52	49	35	34	30

Source: Environmental Protection Agency (EPA), Clear Skies Initiative Analysis, Runs Table for EPA Modeling Applications 2003 Using IPM <http://www.epa.gov/airmarkets/epa-ipm/results2003.html>, EPA Base Case for 2003 Analyses <http://www.epa.gov/airmarkets/epa-ipm/EPA216a9c.zip>, and 2003 Clear Skies Act Case <http://www.epa.gov/airmarkets/epa-ipm/EPA216c3.zip>

Notes:

The proposed Clear Skies legislation would create a mandatory program that would dramatically reduce power plant emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_x), and mercury by setting a national cap on each pollutant. <http://www.epa.gov/air/clearskies/>

Clear Skies would:

Cut sulfur dioxide (SO₂) emissions by 73 percent, from year 2000 emissions of 11 million tons to a cap of 4.5 million tons in 2010 and to a cap of 3 million tons in 2018.

Cut emissions of nitrogen oxides (NO_x) by 67 percent, from year 2000 emissions of 5 million tons to a cap of 2.1 million tons in 2008 and to a cap of 1.7 million tons in 2018.

Cut mercury emissions by 69 percent - the first-ever national cap on mercury emissions. Emissions would be cut from 1999 emissions of 48 tons to a cap of 26 tons in 2010 and to a cap of 15 tons in 2018.

Analytical Framework of IPM • EPA uses the Integrated Planning Model (IPM) to analyze the projected impact of environmental policies on the electric power sector in the 48 contiguous states and the District of Columbia. Developed by ICF Resources Incorporated and used to support public and private sector clients, IPM is a multi-regional, dynamic, deterministic linear programming model of the U.S. electric power sector. • The model provides forecasts of least-cost capacity expansion, electricity dispatch, and emission control strategies for meeting energy demand and environmental, transmission, dispatch, and reliability constraints. IPM can be used to evaluate the cost and emissions impacts of proposed policies to limit emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon dioxide (CO₂), and mercury (Hg) from the electric power sector. • IPM was a key analytical tool in developing the President's Clear Skies proposal.